



## *Sonerila epeduncula* (Melastomataceae): A new species from South Western Ghats, India

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### Article History

Received: 17 November 2018

Accepted: 03 January 2019

Published: March 2019

### Citation

Jose Mathew, Usha SS, Pichan M Salim, Radhamany P Madhavan, Regy Yohannan. *Sonerila epeduncula* (Melastomataceae): A new species from South Western Ghats, India. *Species*, 2019, 20, 72-75

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### ABSTRACT

A new species of *Sonerila* (Melastomataceae), *S. epeduncula* from South Western Ghats is described here. Taxonomic descriptions, morphological differences to their allied taxa and colour photographs are provided to facilitate easy identification in the field.

**Keywords:** new species; Western Ghats; Taxonomy

### 1. INTRODUCTION

The genus *Sonerila* Roxb., a largest genus in the family Melastomataceae mainly distributed in Sri Lanka and southern India to the Indo-Pacific regions (Cellinese, 1997; Resmi *et al.*, 2018). This genus can be easily recognized by its erect or creeping terrestrial, low

epiphytic herbs or semi-woody shrubby habit and consistently trimerous flowers, mostly scorpioid cymes and 3-locular, inferior ovary.

Based on the recent estimations, the genus is represented by 183 species and of which, 52 species in India and Western Ghats has the highest species diversity with about 40 species (Nayar, 1976; Giri & Nayar, 1987; Prakash & Mehrotra, 1988; Gopalan & Henry, 1989; Giri *et al.*, 1992; Ravikumar, 1999, Murugan & Manickam 2002, Josephine *et al.* 2003, Lundin & Nordenstam, 2009, Murugesan & Balasubramaniam, 2011; Deepthikumary & Pandurangan, 2014; Sunil *et al.*, 2014, Narayanan *et al.*, 2015, Sujanapal *et al.*, 2016; Murugan & Nair, 2016; Resmi *et al.*, 2018).

Botanical exploration of the forests of Kerala, during 2015–2016, yielded some interesting specimens of the genus *Sonerila*. Critical analysis of the literature as well as of herbarium specimens revealed that some of the collected specimens do not match any of the previously described species. These specimens are sufficiently distinct to warrant taxonomic recognition as new species and are here described and illustrated here.

## 2. *SONERILA EPEDUNCULA* J.MATHEW, *SP. NOV.* (Fig. 1)

### TYPE:

India. Kerala, Idukki district, Parunthumpara Hills, Way to Kuttikanam, altitude 1250 m a. s. l., 07 July 2015, *J.Mathew 5113* (holotype: KUBH!-Kerala University Herbarium, Thiruvananthapuram, Kerala- ; isotype: KUBH!). – PARATYPE: Same locality, 11 August 2016, *J.Mathew 5714-5715* (KUBH!).

### Etymology:

The specific epithet '*epeduncula*' refers to the absence of the peduncle of the new species.

Succulent herbs attaining 10–25 cm height. **Stems** rarely branched, glabrescent, quadrangular in shape and grooved, purple in colour. **Roots** hairy, 1–3 cm long. **Leaves** opposite, fleshy, petiole 0.5–1.5 cm, adaxially grooved, glabrous, lamina ovate, 2.1–3.5 × 1.5–2.2 cm, base cordate to obtuse, green with pink tinge below, both surface are glabrous, margins finely serrate with pink colourations, acute at apex, prominently 5-nerved, a pair of nerve obscurely seen near the margin. **Inflorescence** terminal, condensed, a 2–5-flowered cyme. Peduncle absent. Flowers 3-merous, pedicel 0.6–0.7 cm, shorter than hypanthium, light green. **Hypanthium** 0.7–1.1 cm long, campanulate, light green. Calyx lobes 3, 0.16–0.25 cm long, triangular, non-caducous, glabrous and pink tinge. **Petals** 3, 0.7–1.25 × 0.6 cm–1 cm orbicular-ovate, acuminate at apex. **Stamens** 3; filaments 0.4–0.5 cm long, glabrous, white; anthers yellow, 0.37–0.48 cm, widely cordate at base, glabrous. **Style** 0.8–0.9 cm long, straight, deep pink towards the tip. **Stigma** capitate, glabrous. Capsule campanulate, 0.8–1.2 cm long and 0.52 cm wide, green. **Seeds** many, 0.08 × 0.05 cm, minutely tubercled, brown. **Flowering and fruiting** June–August.

### Distribution and Habitat:

Found in the montane forest ca. 1250 m. of the Parunthumpara Hills, 15 km away from Periyar Tiger Reserve, Western Ghats, India. Grows on the crevices of rocky cliffs in association with *Didymocarpus tomentosa* Wight and *Drosera peltata* Thunb and *Satyrium nepalense* D. Don

### Conservation status:

The conservation status of this variety is data deficient. However the distribution is limited with only a few plants observed at the few known locations (each with c. 30–100 plants). Further survey for this variety is suggested, which would need to be conducted in June to August when Monsoon starts and plants are flowering.

### Diagnosis:

*Sonerila epeduncula* is fairly similar to *Sonerila nairii* Soumya & Maya, in both vegetative and floral morphology but differs mainly in having: quadrangular, grooved and glabrous stem (vs cylindrical and hirsute stem in *S. nairii*), glabrescent leaves with five prominent nerves (vs hirsute leaves 3 prominent nerves in *S. nairii*), 1–5 flowered compressed cyme (1–2 flowered cyme in *S. nairii*), glabrous hypanthium (vs hypanthium with sparse glandular trichomes in *S. nairii*) and anthers as long as filaments (vs anthers half the length of filaments in *S. nairii*)

### ACKNOWLEDGEMENT

The corresponding author is grateful to Dr. K. N. Gandhi, Harvard University, USA for suggestions and nomenclatural corrections. The authors are thankful to the herbarium curator at KUBH, Kerala for consultations, and the Kerala Forest Department for

permission to conduct research. This finding was supported by Post Doctoral Fellowship funded by SERB (DST-INDIA) under NPDP-PDF/2017/000135.



**Figure 1** *Sonerila epeduncula* J.Mathew.–A: Whole plant.– D:Long stem and leaves.–E, F & G: Inflorescence on plant twig



**Funding:** This study was funded by Post Doctoral Fellowship funded by SERB (DST-INDIA) under NPDF-PDF/2017/000135.

**Conflict of Interest:** The authors declare that there are no conflicts of interests.

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